

**Abstract**

A method for assisting a mobile terminal in an unsynchronised wireless communications network to determine its location using a global positioning system (GPS) by providing a GPS receiver of the mobile terminal with reference time data is disclosed. The method includes, obtaining a first time signal that is substantially synchronised with the GPS time, determining a latency time indicative of least an approximate network latency for the transmission of the reference time data through the network to the mobile terminal; generating the reference time data based on the first time signal and the latency time; and transmitting at least the reference time data to the mobile terminal.

The latency time can be determined by estimating the network latency or by obtaining demodulated time data that is substantially synchronised with the GPS time from a GPS receiver associated with a second terminal in communication with the network; receiving at the second terminal the reference time data; and comparing the demodulated time data to the reference time data to determine the latency time associated with the transmission of the reference time data to the second terminal.

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